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REMARKS

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Claims 9-13 and 19-46 were pending in the Application. Claim 9 is an independent claim and claims 10-13 and 39-41 depend therefrom. Claim 19 is an independent claim and claims 20-26 and 42-46 depend therefrom. Claim 27 is an independent claim and claims 28-38 depend therefrom. Claims 1-8 and 14-18 were previously canceled. Claims 9-13, 29 and 39-41 are currently amended. The Applicant respectfully requests that the application be reconsidered in view of the amendments set forth above and the following remarks.

Claim Objections

In point 8 on page 2 of the Office Action, claim 29 was objected to for minor informalities. The Applicant respectfully traverses the objection, however, in order to advance prosecution in the application, the Applicant has amended claim 29 to correct the noticed minor informalities. Specifically, as acknowledged by the Examiner in point 7 on page 2 of the Office Action, claim 29 bears the "Previously Presented" identifier. In other words, the Applicant did not intend to amend claim 29. Regardless, because it appears that the Examiner entered an amendment to claim 29 deleting the colon after "wherein," the Applicant has amended claim 29 to reinsert the colon after the word "wherein." The Applicant respectfully asserts that the minor amendment to claim 29 does not alter the scope of the claim as originally presented. The Applicant believes the amendment to claim 29 has overcome the noticed minor informalities and therefore respectfully requests that the objection to claim 29 be withdrawn.

Rejections Under 35 U.S.C. §112, First Paragraph

In points 9-10 on pages 2-3 of the Office Action, claim 45 was rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. Specifically, the

Office Action alleges that "[c]laim 45 recites the limitation of the model of the modem comprises an actual hardware component. The subject matter is not properly described in the application as filed, since the specification only discloses that a playback device may include various components of the actual communication device (*e.g.*, an ADSL modem) being modeled (*see Page 10, Paragraph [26]*). The specification lacks disclosure on the model of the modem comprising any actual hardware components." (Non-Final Office Action, Page 3, Point 10 (emphasis in original)). The Applicant respectfully traverses the rejections for at least the following reasons. As acknowledged by the Examiner above, the Applicant's specification discloses that the model is of a modem. Further, Applicant's Specification discloses hardware modeling components, wherein the hardware modeling components are of the actual communication device being modeled. (Applicant's Specification, Page 10, Lines 12-14).

The Applicant notes that claim 45 was previously amended to clarify that what was being claimed was a hardware model of hardware as opposed to a software model of hardware. It appeared from the August 24, 2007 non-final Office Action, that the Examiner interpreted "wherein the model of the modem comprises a hardware component that is the same as a hardware component of the modem being modeled" as "wherein the model of the modem comprises [a software model of a hardware component] that is the same as the hardware component of the modem being modeled." Such interpretation can be evidenced by the non-final Office Action's reliance on Kaler, which merely discloses software models of hardware (i.e., animated application models) rather than hardware models of hardware. Thus, the Applicant submits that by disclosing hardware modeling components of the actual communication device being modeled, the Applicant's Specification clearly supports "wherein the model of the modem comprises an actual hardware component that is the same as a hardware component of the modem being modeled," as set forth in Applicant's dependent claim 45. Therefore, the Applicant respectfully requests that the rejection of dependent claim 45 under 35 U.S.C. §112, first paragraph, be withdrawn.

Rejections Under 35 U.S.C. §112, Second Paragraph

In points 11-12 on pages 3-4 of the Office Action, claim 45 was rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action alleges that claim 45 "is rendered indefinite because a model of a modem cannot possibly contain any actual hardware components. A model of a modem can only contain modeled versions of the actual hardware components of the modem." (Non-Final Office Action, Page 4, Point 12). The Applicant notes that contrary to the non-final Office Action's assertion, a model of a modem can contain actual hardware components. As mentioned above, the Applicant's specification clearly supports hardware modeling components of the actual modem being modeled. (Applicant's Specification, Page 10, Lines 12-14). The Applicant agrees that a model of a modem contains modeled versions of the actual components of the modem. However, the Applicant notes that such modeled versions can clearly be actual hardware models of hardware as opposed to software models of hardware. In other words, although hardware is being modeled, the model itself may contain actual hardware as opposed to software. As mentioned above, the term "actual" was used to clarify that the model of the modem comprising the hardware component is an actual hardware model as opposed to a software model of a hardware component. Thus, the Applicant respectfully submits that Applicant's dependent claim 45 complies with 35 U.S.C. §112, second paragraph. Therefore, the Applicant respectfully requests that the rejection of dependent claim 45 under 35 U.S.C. §112, second paragraph, be withdrawn.

Rejections Under 35 U.S.C. §101

In points 13-14 on pages 4-5 of the Office Action, claims 9-13 were rejected under 35 U.S.C. §101 as being non-statutory subject matter. The Applicant respectfully traverses the rejections; however, in order to advance prosecution in the matter, the Applicant has made minor amendments to clarify that a modem is a device (i.e., "modem device") and a recording module is a processor (i.e., "recording module processor"). Further, with regard to the Office Action's

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allegation that "Figure 1 and its corresponding description in the specification provide no disclosure on the claimed elements "first input" and "second input" as being hardware components," the Applicant notes that Applicant's Figure 1 and corresponding description disclose a communication device 101 (i.e., hardware) receiving input data 107 and input samples 105. (*See* Applicant's Specification, Figure 1 (105, 107) and Page 8, Lines 9-22). Clearly, common sense dictates that a communication device (i.e., hardware) receiving input data 107 and input samples 105 would do so at a structural component of the communication device (i.e., hardware). Thus, it is nonsensical to interpret "a first input that **operates to receive information**..." and "a second input that **operates to receive information**..." as anything other than a structural component of the modem device being claimed. Further, the non-final Office Action has failed to show where in the Applicant's specification the "first input" and "second input" is defined as software. Thus, at least for the reasons set forth above, the Applicant submits that claims 9-13 are statutory subject matter under 35 U.S.C. §101 and therefore, rejections of claims 9-13 under 35 U.S.C. §101 cannot be maintained.

Rejections Under 35 U.S.C. §102(e) – Abdelilah

In points 15-16 on pages 5 through 10 of the non-final Office Action, independent claim 9 and dependent claims 11-13 and 39-41 were rejected under 35 U.S.C. §102(e) as being anticipated by Abdelilah et al. (U.S. Patent No. 6,823,004, hereinafter "Abdelilah"). Without conceding that Kaler qualifies as prior art under 35 U.S.C. §102(e), the Applicant respectfully traverses the rejections for at least the following reasons.

With regard to the anticipation rejections, MPEP 2131 states, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed.Cir. 1987). MPEP 2131 also states, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Regarding claim 9, the Applicant respectfully submits that Abdelilah fails to at least teach, suggest, or disclose, for example, "a recording module processor communicatively coupled to the first input and the second input that operates to cause input information arriving at one or both of the first input and the second input during real-time operation of the modem to be recorded for subsequent non-real-time analysis," as set forth in Applicant's independent claim 9.

The non-final Office Action cites to Abdelilah's Column 8, Lines 15-20 and 28-30; Column 9, Line 66 to Column 10, Line 5; and Column 13, Lines 32-42 as allegedly disclosing "a recording module processor communicatively coupled to the first input and the second input that operates to cause input information arriving at one or both of the first input and the second input during real-time operation of the modem to be recorded for subsequent non-real time analysis." However, Abdelilah's disclosure of recording state transitions made for one or more of the state machines of the modems is different than recording input information arriving at one or both of the first input and the second input. The Applicant notes that the state transitions are not input information. Instead, the state transitions are internal state changes made by the state machines internal to the modem. (Abdelilah, Column 8, Line 64).

Further, throughout Abdelilah's disclosure, Abdelilah teaches using the DSP 340 to process and store in DSP memory 345: diagnostic data, data related to modem performance, internal state information, etc. (See e.g., Abdelilah, Abstract, Column 4, Lines 62-64, Column 5, Lines 14 and 24-30, Column 8, Lines 16-19, 30-31 and 63-66, Column 9, Lines 1-4, 10-11 and 33-43). However, nowhere in Abdelilah is there any disclosure regarding recording the actual input information received at one or both of the first input and the second input. Rather, Abdelilah only discloses monitoring select types of information. (Abdelilah, Column 10, Lines 6-7). Thus, because Abdelilah merely discloses processing and storing select data related to diagnostics, performance and internal states, Abdelilah fails to disclose "a recording module processor communicatively coupled to the first input and the second input that **operates to cause input information arriving at one or both of the first input and the second input** during **real-time operation of the modem <u>to be recorded</u>** for subsequent non-real time analysis," as recited by the Applicant in independent claim 9. Because the Office Action has failed to show

"each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" as required for an anticipation rejection under MPEP 2131, the rejection under 35 U.S.C. § 102(e) cannot be maintained.

Therefore, for at least the above stated reasons, Applicant respectfully submits that the Abdelilah reference fails to teach, suggest, or disclose Applicant's invention as set forth in claim 9. The Applicant believes that claim 9 is allowable over Abdelilah. Applicant respectfully submits that claim 9 is an independent claim, and that claims 10-13 and 39-41 depend either directly or indirectly from independent claim 9. Because claims 10-13 and 39-41 depend from claim 9, Applicant respectfully submits that claims 10-13 and 39-41 are allowable over the Abdelilah reference, as well. The Applicant further submits that each of claims 10-13 and 39-41 is independently allowable. The Applicant respectfully requests, therefore, that the rejection of claims 9-13 and 39-41 under U.S.C. §102(e), be withdrawn.

Rejections Under 35 U.S.C. §103(a) – Abdelilah and Kaler

In points 17-18 on pages 10 through 32, independent claims 19 and 27, and dependent claims 20-26, 28-38 and 42-46 were rejected under 35 U.S.C. §103(a) as being unpatentable over Abdelilah in view of Kaler et al. (U.S. Patent No. 6,467,052, hereinafter "Kaler"). The Applicant respectfully traverses the rejection for at least the following reasons.

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

Regarding claim 19, Applicant respectfully submits that the combination of Abdelilah and Kaler at least fails to teach, suggest, or disclose at least, for example, "a memory comprising input information that was recorded by a recording module residing on a modem during real-time operation of the modem," as set forth in Applicant's amended, independent claim 19.

As mentioned above, Abdelilah fails to disclose "a memory comprising **input information that was recorded by a recording module residing on a modem** during real-time operation of the modem," as set forth in Applicant's independent claim 19. Abdelilah's disclosure of recording state transitions made for one or more of the state machines of the modems is different than recording input information arriving at one or both of the first input and the second input. The Applicant notes that the state transitions are not input information. Instead, the state transitions are internal state changes made by the state machines internal to the modem. (Abdelilah, Column 8, Line 64). Further, throughout Abdelilah's disclosure, Abdelilah teaches using the DSP 340 to process and store in DSP memory 345: diagnostic data, data related to modem performance, internal state information, etc. (See e.g., Abdelilah, Abstract, Column 4, Lines 62-64, Column 5, Lines 14 and 24-30, Column 8, Lines 16-19, 30-31 and 63-66, Column 9, Lines 1-4, 10-11 and 33-43). However, nowhere in Abdelilah is there any disclosure regarding recording the actual

input information received at one or both of the first input and the second input. Rather, Abdelilah only discloses monitoring select types of information. (Abdelilah, Column 10, Lines 6-7). Kaler fails to remedy the deficiencies of Abdelilah. Thus, because the combination of Abdelilah in view of Kaler fails to teach the limitations of Applicant's independent claim 19, the rejection under 35 U.S.C. § 103(a) cannot be maintained.

Therefore, for at least the above stated reasons, Applicant respectfully submits that Applicant's claim 19 is allowable over the combination of Abdelilah and Kaler. Applicant respectfully submits that claim 19 is an independent claim, and that claims 20-26 and 42-46 depend either directly or indirectly from independent claim 19. Because claims 20-26 and 42-46 depend from claim 19, Applicant respectfully submits that claims 20-26 and 42-46 are allowable over the combination of Abdelilah and Kaler, as well. The Applicant further submits that each of claims 20-26 and 42-46 is independently allowable. The Applicant respectfully requests, therefore, that the rejections of claims 19-26 and 42-46 under U.S.C. §103(a), be withdrawn.

Turning next to claim 27, Applicant respectfully submits that the combination of Abdelilah and Kaler at least fails to teach, suggest, or disclose at least, for example, "while operating the modem in real-time, utilizing the recording module to cause the recording of input information input to at least the first and/or second inputs of the modem."

As mentioned above, Abdelilah fails to disclose "while operating the modem in real-time, **utilizing the recording module to cause the recording of input information input to at least the first and/or second inputs of the modem**," as set forth in Applicant's independent claim 27. Abdelilah's disclosure of recording state transitions made for one or more of the state machines of the modems is different than recording input information arriving at one or both of the first input and the second input. The Applicant notes that the state transitions are not input information. Instead, the state transitions are internal state changes made by the state machines internal to the modem. (Abdelilah, Column 8, Line 64). Further, throughout Abdelilah's disclosure, Abdelilah teaches using the DSP 340 to process and store in DSP memory 345:

diagnostic data, data related to modem performance, internal state information, etc. (See e.g., Abdelilah, Abstract, Column 4, Lines 62-64, Column 5, Lines 14 and 24-30, Column 8, Lines 16-19, 30-31 and 63-66, Column 9, Lines 1-4, 10-11 and 33-43). However, nowhere in Abdelilah is there any disclosure regarding recording the actual input information received at one or both of the first input and the second input. Rather, Abdelilah only discloses monitoring select types of information. (Abdelilah, Column 10, Lines 6-7). Kaler fails to remedy the deficiencies of Abdelilah. Thus, because the combination of Abdelilah in view of Kaler fails to teach the limitations of Applicant's independent claim 27, the rejection under 35 U.S.C. § 103(a) cannot be maintained.

Therefore, for at least the above stated reasons, Applicant respectfully submits that Applicant's claim 27 is allowable over the combination of Abdelilah and Kaler. Applicant respectfully submits that claim 27 is an independent claim, and that claims 28-38 depend either directly or indirectly from independent claim 27. Because claims 28-38 depend from claim 27, Applicant respectfully submits that claims 28-38 are allowable over the combination of Abdelilah and Kaler, as well. The Applicant further submits that each of claims 28-38 is independently allowable. The Applicant respectfully requests, therefore, that the rejections of claims 27-38 under U.S.C. §103(a), be withdrawn.

Final Matters

The Office Action makes various statements regarding claims 9-13 and 19-46, 35 U.S.C. § 112, First Paragraph, 35 U.S.C. § 112, Second Paragraph, 35 U.S.C. § 101, 35 U.S.C. § 102(e), 35 U.S.C. § 103(a), the Abdelilah reference, the Kaler reference, one of skill in the art, etc. that are now moot in view of the above amendments and/or arguments. Thus, the Applicants will not address all of such statements at the present time. However, the Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a rejection of any current or future claim).

Applicant reserves the right to argue additional reasons supporting the allowability of claims 9-13 and 19-46 should the need arise in the future.

CONCLUSION

Applicant respectfully submits that claims 9-13 and 19-46 are in condition for allowance, and requests that the application be passed to issue.

Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Please charge any required fees not paid herewith or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Date: _December 9, 2008_   Respectfully submitted,

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